What is claimed is:

1. A method of expelling a fluid comprising:

filling a nozzle with a fluid using a capillary force;

generating an ion wind by ionizing air near an outlet of the nozzle; and

expelling the fluid from the nozzle as the ion wind decreases a pressure around the outlet of the nozzle.

2. The method as claimed in claim 1, wherein the ionizing of air is performed by an electric field formed between two electrodes disposed near the outlet of the nozzle.

3. The method as claimed in claim 2, wherein a volume and speed of the fluid expelled are adjusted by varying voltages applied between the two electrodes and a time duration of voltage application.

4. The method as claimed in claim 2, wherein an expelling frequency of the fluid is adjusted by varying a pulse period of the voltage applied to the electrodes.

5. The method as claimed in claim 1, wherein the ion wind flows toward the outlet of the nozzle and upward at a front portion of the outlet of the nozzle.

6. The method as claimed in claim 5, wherein the ion wind flows in an inclined direction toward the front portion of the outlet of the nozzle.

7. The method as claimed in claim 1, wherein the fluid is ink expelled from an ink-jet printhead.

8. An ink-jet printhead, comprising:

a manifold formed in a passageway plate to supply ink;

a nozzle to be supplied with ink formed in a nozzle plate provided on the passageway plate, the ink being supplied by a capillary force; and

a ground electrode and a source electrode arranged near an outlet of the nozzle, the ground electrode and the source electrode forming an electric field due to an application of a voltage thereto and ionizing air near the outlet of the nozzle to produce an ion wind to decrease a pressure near the outlet of the nozzle to expel the ink contained in the nozzle.

9. The ink-jet printhead as claimed in claim 8, wherein the ground electrode is disposed adjacent the outlet of the nozzle and the source electrode is disposed a predetermined distance from the ground electrode away from the outlet of the nozzle.

10. The ink-jet printhead as claimed in claim 8, wherein the ion wind flows toward the outlet of the nozzle and flows upward at a front portion of the outlet of the nozzle.

11. The ink-jet printhead as claimed in claim 8, further comprising:

a recess having a predetermined depth formed at a periphery of the outlet of the nozzle on a surface of the nozzle plate, the ground electrode and the source electrode being arranged within the recess.

12. The ink-jet printhead as claimed in claim 11, wherein the recess has a shape of a ring surrounding the nozzle.

13. The ink-jet printhead as claimed in claim 11, wherein a side of the recess adjacent the outlet of the nozzle is inclined to permit the ion wind to flow in an inclined direction toward a front portion of the outlet of the nozzle.

14. The ink-jet printhead as claimed in claim 13, wherein the ground electrode is disposed on a bottom of the recess or on the inclined side of the recess.

15. The ink-jet printhead as claimed in claim 8, further comprising:

an ion wind path for guiding the ion wind formed in the nozzle plate to surround the nozzle, the ground electrode and the source electrode being arranged within the ion wind path.

16. The ink-jet printhead as claimed in claim 15, wherein the ion wind path is shaped as a ring surrounding the nozzle.

17. The ink-jet printhead as claimed in claim 15, wherein an outlet side of the ion wind path is inclined to permit the ion wind to flow in an inclined direction toward a front portion of an outlet of the ion wind path.

18. The ink-jet printhead as claimed in claim 17, wherein the ground electrode is disposed on the inclined side of the ion wind path and the source electrode is disposed a predetermined distance apart from the ground electrode.

19. The ink-jet printhead as claimed in claim 15, further comprising:

an air path for supplying the ion wind path with air formed in the nozzle plate to communicate with the ion wind path.

20. The ink-jet printhead as claimed in claim 19, wherein the air path is formed in a vertical, horizontal, or inclined direction and communicates with a lower portion of the ion wind path.

21. The ink-jet printhead as claimed in claim 8, wherein the nozzle has a tapered shape in which a cross-sectional area of the nozzle decreases gradually toward the outlet of the nozzle.

22. The ink-jet printhead as claimed in claim 8, wherein the ground electrode and the source electrode surround the outlet of the nozzle.

23. The ink-jet printhead as claimed in claim 8, wherein a shape of the ground electrode and the source electrode is selected from the group consisting of circular, oval, and polygonal.

24. The ink-jet printhead as claimed in claim 8, wherein the source electrode has a cross-sectional area smaller than a cross-sectional area of the ground electrode.

25. The ink-jet printhead as claimed in claim 8, wherein the source electrode comprises:

a protrusion extending toward the ground electrode.

26. The ink-jet printhead as claimed in claim 25, wherein the protrusion is a plurality of protrusions provided at equidistant intervals along a lengthwise direction of the source electrode.

27. The ink-jet printhead as claimed in claim 8, wherein the nozzle is a plurality of nozzles, each formed in the nozzle plate, and one of a plurality of ground electrodes and one of a plurality of source electrodes are arranged near each of the plurality of nozzles, and wherein ink may be

expelled from each of the plurality of nozzles simultaneously, sequentially, or individually.